SWAT 90: Does the time at which a participant incentive is given affect the retention rate?

Objective of this SWAT
To compare the effects on retention rates of giving trial participants a £20 gift voucher at the recruitment visit versus when they have returned their trial diary.

Study area: Follow-up, Retention
Sample type: Participants
Estimated funding level needed: Medium

Background
A Cochrane Methodology review has shown that adding participant incentives into clinical trials increases the response rate to postal questionnaires [1]; and in another Cochrane Methodology review, Edwards et al showed that the response rate more than doubles when adding in monetary incentives [2]. We wish to build on this evidence and investigate the most appropriate time at which to give the participant the incentive. There has been some research into the idea of conditional (after the diary is returned) versus non-conditional (at the point of recruitment) incentives. A recent Australian study showed that adding an incentive to postal questionnaires sent to GPs increased the response rate, but there was a non-significant difference in the response rates between those given the incentive upfront and those given it following survey completion [3]. However, Kanaan et al showed that in a group of neurologists, a non-conditional incentive did improve response rates where a conditional incentive didn't [4].

Currently within trials in the primary care setting, there is disparity between the timing of incentives being given, some trials are implementing non-conditional incentives [5], others conditional [6,7,8]. Within trial teams, it is often debated as to which time is better to give the incentive, and this question still needs further evaluation. When a participant is given a non-conditional incentive, following the recruitment visit, it is thought that this gives them a sense of commitment to return their diaries. However, when given as a conditional incentive, after the diary has been returned, this can act as an ongoing motivation to return the diary in order to receive the money.
There are also cost factors to consider. When giving the incentive at the start of the trial all participants will receive the money, meaning that the maximum cost is incurred. However, when given at the end, the cost impact is unlikely to be as high because some participants will not return their diary. However, added to this, is the administration time for organising the posting of the vouchers after the return of the diaries. These factors mean that the costs are higher when the incentive is given up front, but the burden on the trial team is increased when given following diary return. Therefore, this SWAT will investigate which timing is more effective in increasing the response rates and whether there is any effect on the completeness of the data returned.

Interventions and comparators
Intervention 1: A £20 gift voucher given at the end of the recruitment visit
Intervention 2: A £20 gift voucher given after the return of the trial diary

Index Type: Incentive

Method for allocating to intervention or comparator
Randomisation

Outcome measures
Primary: Proportion of participants returning a symptom diary
Secondary: 1. Time to diary return
2. Completeness of the returned diaries
3. Costs incurred as a result of the incentives given

Analysis plans
All analyses are based on the randomised groups, irrespective of compliance with allocation at the cluster (site level), with statistical significance assessed at the 2-sided 5% significance level throughout. This approach is convenient in terms of the analysis strategy as it prevents a unit of

analysis error (because the number of observations is equal to the number of randomisations), and the need for more complex statistical approaches. Additionally, by conducting the analysis at the cluster level the paired nature of the randomisation can be more readily addressed using standard statistical analysis methods. Number recruited, proportion of diaries returned, time to return of the diary and average pages completed are summarised using median, interquartile range and range. For the primary outcome, the proportion of diaries returned at each site is compared between the allocated groups and a corresponding 95% confidence interval (CI) calculated. When this SWAT was implement, the unanticipated small number of available pairs meant that this analysis was done using regression with cluster option to account for pair as a cluster. Sensitivity analyses included Mann-Whitney U test on the observed site level data (ignoring the pairing) and two analyses on the subset of available paired data (paired t test and a Wilcoxon sign rank test). 95% CI were calculated from the regression and the paired t-test for the mean difference.

Possible problems in implementing this SWAT
The main challenges in the design and implementation of this SWAT was ensuring that the individual participants received the vouchers at the appropriate time and that the randomised groups had equal levels of recruitment of participants into them. A cluster randomised design was used to enable the intervention to be applied consistently within sites from a practical point of implementation. As there was concern about the relatively low number of clusters, and in order to try to manage anticipated differences between sites, which would impact upon recruitment, a paired cluster randomised design was used. It was decided that if there is an imbalance within the recruitment into the two groups or where there are pairs where one site had recruited and the other had not, the planned analysis within the matched pair clusters will still occur, but an individual patient data (IPD) analysis will be added.

References
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Publications or presentations of this SWAT design

Examples of the implementation of this SWAT

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